REMARKS

The present Amendment is in response to the Office Action mailed June 12, 2008. Claims 3-9 and 14-20 were previously withdrawn, claims 1-2, 10-13 and 21-22 are amended. Claims 1-2, 10-13 and 21-22 are now pending in view of the above amendments.

Applicants note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. Applicants also note that the remarks presented herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited reference. Such remarks, or a lack of remarks, are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicants: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicants reserve the right to challenge the purported teaching and prior art status of the cited references at any appropriate time. Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks.

Rejection Under 35 U.S.C. § 112, Second Paragraph

The Office Action rejected claims 1-2, 10-13 and 21-22 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Office Action objects to the phrase "in the case that" as being indefinite. Claims 1 and 12 have been amended to replace "in the case that" with – when --. This clarifies that the elements are positive recitations. Also, claim 1 has been amended to clarify that a no-load voltage is calculated when specific selection conditions are satisfied and to clarify that an open circuit voltage is calculated when specific selection

conditions are not satisfied and one of specific current conditions and voltage conditions continue to be met for a certain amount of time.

In claims 2 and 13, "the physical properties", "the state of charging or discharging" are changed to -- physical properties --, -- a state of charging or discharging --, respectively, at first occurrence. The phrase "the charge/discharge electricity amount" is changed to -- a charge/discharge electricity amount – at first occurrence. Furthermore, the phrase "the usable domain of state of charge" is changed to -- the usable domain --.

Claims 10 and 11 are amended to include all elements of claim 1. Claims 21 and 22 are amended to include all elements of claim 12.

Claims 1-2, 10-13, and 21-22 have thus been amended as required by the Examiner and Applicants respectfully submit that the rejection under § 112, second paragraph is overcome.

Rejection Under 35 U.S.C. §102

The Office Action rejected claims 1 and 12 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,160,380 (*Tsuji*). Applicants respectfully traverse the rejection at least on the grounds that the reference does not teach or suggest each and every element of the rejected claims, as required to establish a rejection under § 102.

Claim 1 is directed to a method for estimating a charge/discharge electricity amount of a secondary battery and has been amended to clarify that a no-load voltage is calculated as a voltage intercept at a current of zero when specific selection conditions are satisfied. When specific selection conditions are not satisfied and one of specific current conditions and voltage conditions continue to be met for a certain amount of time, an open circuit voltage is calculated from the terminal voltage of the secondary battery.

These elements of claim 1, among others, are not taught or suggested by *Tsuji*. *Tsuji* does not disclose "when specific selection conditions are satisfied, calculating a no-load voltage as a voltage intercept at a current of zero in a straight-line approximation obtained by statistical processing with respect to the plurality of pairs of

data," and "when specific selection conditions are not satisfied and one of specific current conditions and voltage conditions continue to be met for a certain amount of time, calculating an open circuit voltage from the terminal voltage of the secondary battery," as recited in amended claims 1 and 12.

Rather, *Tsuji* discloses correcting an initial battery characteristic by the temperature correction factor α calculated based on the temperature of the battery and the deterioration correction factors γ, β calculated based on battery deterioration and calculating the residual capacity based on the corrected battery characteristic, a real time discharge current I during discharge, and a terminal voltage V. *See e.g.,* equations 10 and 12.

In claim 1, since an estimated charge/discharge electricity amount can be calculated from the calculated voltage (no-load voltage or open circuit voltage) that is not greatly affected by current measurement error, it is possible to estimate a polarization voltage and state of charge that do not depend on the current measurement error. *Tsuji* does not teach or suggest this aspect, among others of claims 1 and 12. As illustrated above, the correction factors are dependent on the corrected battery characteristic, a real time discharge current I during discharge, and a terminal voltage V. Accordingly, Applicants respectfully submit that claims 1 and 12 are patentable over *Tsuji*.

Claims 10-11 and 21-22 were rejected under U.S.C. 102 (a, b or e) as being anticipated by Applicant Admitted Prior Art (AAPA). Applicant traverses this rejection.

Since claims 10 and 11 have been amended to include all the elements of claim 1 and claims 21 and 22 have been amended to include all the elements of claim 12, we believe that the invention of claims 10-11 and 21-22 clearly distinguishes over AAPA.

CONCLUSION

In view of the foregoing, Applicants believe the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 12th day of September, 2008.

Respectfully submitted,

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